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CASE OF EXTENSIVE CARIES OF THE HIP-JOINT, WITH DISEASE
OF THE KIDNEYS.

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On the evening of December 15th, 1862, I was called to see Mr. S. S., of Roxbury, aged 47, who was represented to be suffering from an attack of sciatica. On arriving at his residence, I found Mr. S. lying upon a couch, and in severe pain. He gave me the following history of his case: About six weeks prior to my visit, he had an attack of slow fever; such, at least, was his complaint called by a homœopathist who attended him; which fever, after confining him more or less to his house for four weeks, left him in a very weak state.

During the latter part of this illness, four weeks from this date, he was attacked with excruciating pain in the right hip-joint, extending down the course of the sciatic nerve to the knee-joint, and from thence to the toes. At times he would suddenly suffer from a paroxysm of pain, which he called "cramps," during which his limb would be involuntarily bent, and any motion of the affected member be impossible. To stand upon the limb was out of the question. In consequence of suffering for four weeks, day and night, without cessation, Mr. S. was completely reduced in strength when I saw him; pulse 98, feeble; appetite good, bowels regular, temperament rather nervous, yet hopeful. I discovered no symptom of disease in any other part of the body. A peculiar dark hue of the countenance attracted, however, my attention; but there was no symptomatic evidence of any renal disease. The language of Mr. S. at the time, was—"If it was not for the pain in my limb, I would feel perfectly well." No special attention had thus far been directed to treatment, except the external use of liniments, as the complaint had not been considered of sufficient consequence by the late attending homœopathist to merit any active treatment.

With considerable trouble, and still more pain to himself, the patient by my direction moved from the couch to his bed; and upon examination, I soon satisfied myself that Mr. S.'s real complaint was

disease of the hip-joint, a high state of inflammation, possibly, accompanied with disorganization of the cartilages and bone composing the joint. The sciatica was merely a concomitant symptom, resulting from pressure of the surrounding inflamed tissue upon the sciatic nerve. The temperature around the joint was higher than usual; pressure produced severe pain, as did also the least motion of the limb in any direction, but particularly pressure upwards against the acetabulum—a symptom of the utmost importance in this disease as distinguished from sciatica—whilst pressure upon the sciatic nerve did not cause any pain whatever.

By my direction the patient was laid upon a hair mattress, his limb extended and kept undisturbed. My next object was to relieve the severe pain; and for this purpose I injected ten drops of Squibb's liquor opii comp. near the joint, and then left the patient for the night.

December 16th, 9, A.M.—Passed a very comfortable night; slept better than for several weeks past, and has been free from pain till morning. The injection produced no ill effects. Desires to have it repeated. This done, farinaceous food was ordered, and such directions given as the nature of the case demanded.

17th to 20th.—Has been mostly free from pain, under the use of subcutaneous injection, and seems to gain strength by the use of tonics and good food.

21st.—Pain having returned, and the inflammatory symptoms increasing, I ordered emplastr. cantharid., sufficiently large to cover the whole joint and the tissues around for about three inches.

22d.—Can move his limb with less pain.

23d to 30th.—Has been steadily gaining; can move tolerably well from his bed to the couch, and sits up in a chair from twenty-five to forty minutes.

31st.—Is worse; pulse 110; is quite low spirited, not so much from pain, but, as the patient says, because he "cannot help it." For the first time, to-day, since his illness, he has been unable to empty the bladder. Is relieved by the catheter.

1863. January 1st to 4th.—Has not suffered much pain for the last four days, being relieved by blisters and subcutaneous injection; but the dysuria is increasing. Attempted catheterism, but without success, the patient being very nervous. The free use of barley-water and other appropriate remedies produced a free discharge of urine, however, during the night.

5th.—Patient is quite restless this morning. Pulse 118, bowels irregular, tongue clean, urine scanty. Complains of severe pain in the hip-joint, which is, however, relieved if his limb is placed in a certain elevated position. I resolved to pack the entire limb in sublimed sulphur.

6th.—Passed a very comfortable night. Thinks the sulphur has a very soothing effect. Pulse 108; appetite as usual; no dysuria; bowels active.

7th.—The breath, the perspiration, the character of the discharges from the bladder and rectum, give evidence of the absorption of the sulphur into the system. Patient is entirely free from pain; pulse 116; appetite good; bowels regular. The subcutaneous injections were discontinued from the time when the sulphur was applied.

8th.—No material change since yesterday, as far as the pain in the limb is concerned; but the patient appears to be drowsy and inclined to sleep. Pulse 116; appetite moderate; bowels inactive; urine scanty and high colored. The sulphur is removed from the limb.

9½, P.M.—Has had no pain all day, but continues to be drowsy and indifferent to everything about him. Pulse 120; no headache; bowels acted by means of medicine; bladder empty.

9th, 3, A.M.—Am aroused by a messenger, requesting my immediate presence at Mr. S.'s house. Arrived there for no time was lost, I found the patient awake, but with the exception of being more nervous than when I left him at 10 o'clock the same night, I observed no marked difference in his condition. Pulse 120; skin quite dry; tongue clean; free from all pain. Desires to sleep. After conversing with him for some time about his condition, I left him more calm, with the promise of an early visit in the morning. No change was made in the treatment, no medicine ordered.

9, A.M.—Is awake and like himself, except drowsy; free from all suffering. Pulse 124; tongue clean; skin dry; bowels inactive; no urine passed during the night. But the nurse showed me about four ounces of a greenish, viscid fluid, which Mr. S. had vomited between 6½ and 8 o'clock, without any distress whatever. In appearance this fluid resembled bile. A deliberate examination of the abdomen and other organs (so far as possible), revealed no symptoms of disease anywhere; there was not the slightest pain or even uneasiness, and, what was most remarkable, he did not lose his appetite, but tried to eat beefsteak as usual; no headache or cerebral disturbance; the mind as clear as in his most active days. Bismuth, chloroform and other remedies were ordered to relieve the vomiting, should it return.

7, P.M.—Much the same as in the morning, except that the patient vomited up during the day, at various intervals, nearly two pints of the same green, viscid fluid. Has a great desire for cold water. Is free from pain everywhere; pulse 120, weak; mind clear; still hopes to get better. Counter-irritation over the whole abdomen, and small pieces of ice by the mouth, were my last directions.

10th, 6, A.M.—Am sent for. Mr. S. has thrown up (for it can hardly be called "vomiting," as the fluid leaves the stomach without any effort whatever on the patient's part) at least five pints of the same fluid during the night. I witnessed several of these attacks. Says he feels weak; pulse 128; tongue slightly coated; passed

little urine during the night; no pain in his limb, nor anywhere else. Careful examination again revealed nothing unusual to be traced to any vital organ; there was no soreness of the abdomen; no pain in the stomach; no complaint of pain or suffering in the region of the kidneys; no enlarged liver; bowels and bladder empty—and yet this incessant, inexplicable vomiting! I ordered lac sulphuris, mixed with syrup, to be freely administered. My apprehensions increased, as I saw inexorable death slowly but surely approaching, should this state of things much longer continue.

4, P.M.—Dr. Henry J. Bigelow saw the patient with me in consultation. Since morning, at 9 o'clock, at least four quarts of the same fluid have been vomited. Patient is very weak, as all food is now rejected by the stomach. Pulse 130, weak; tongue slightly coated; skin rather moist; mind perfectly clear; is, however, drowsy. Asserts distinctly, that he has no pain whatever in any part of the body. It was decided to apply counter-irritation to the whole abdomen, and emplastr. cantharid. was at once ordered. Otherwise, no change was made in the treatment, and the ice and lac sulphuris were continued.

10, P.M.—Has continued to vomit since this afternoon, the quantity of fluid rather increasing than diminishing. Vomits about every eight or ten minutes. Remained with Mr. S. till after midnight, during which time I administered myself the ice and lac sulphuris, and succeeded in arresting the paroxysms once for an hour and seven minutes, and at another time fifty-seven minutes. Of all the remedies tried, sulphur did the best service.

11th, 6½, A.M.—A messenger requires my immediate attendance. Patient continued to vomit during the latter part of the night. The fluid fills two large bowls. He is much reduced; pulse 138, weak; he is still free from pain, and the mental faculties are undisturbed. The emplastr. cantharid. applied to the abdomen produced no irritation since yesterday at 4, P.M. His condition is getting more and more critical.

8, A.M.—Drs. H. J. Bigelow and N. B. Shurtleff saw the patient in consultation, but no change of treatment was deemed advisable. Ice and sulphur were administered freely; but it was evident that life was ebbing, and he took final leave of his family with a self-possession and an undisturbed mind that it is the privilege of but few to enjoy in their last moments. Mr. S. gradually sunk, till shortly after 3, P.M., he breathed his last.

Post-mortem, twenty-four hours after death, by Dr. Ellis. Present, Dr. N. B. Shurtleff, cousin of the deceased, Mr. Thomas Hall, Jr., medical student, and myself.

The brain was healthy, with the exception that the serum was more abundant than usual. The kidneys were of the natural size, somewhat lobulated and flaccid. The cortical substance was perhaps more opaque than usual, but this appearance, if real, was so

slightly marked that it would have been overlooked had not the excessive vomiting excited suspicion that the case would prove similar to those reported to the Boston Society for Medical Improvement, April 8th, 1861.

On examining with the microscope a number of sections of the cortical substance of one of the kidneys, not a single healthy tubule was seen. They were either crowded with epithelium, or with minute granules and globules, such as marked the degeneration of the secreting elements. There seems, therefore, no good reason to doubt that a connection existed between the above lesion and the excessive vomiting which finally terminated the patient's life. The other organs, with the exception of the supra-renal capsules, were examined and found healthy.

The right hip-joint contained a little reddish fluid, but not enough to escape when the capsule was opened. The cartilage was entirely destroyed over a portion of the acetabulum, and a large part of the head of the femur. That which remained on the femur was quite thin, and in many places detached from the subjacent surface. Here and there, where no cartilage remained, the surface was covered with an extremely thin, broken, reticulated fibrous film, which was easily removed, and with it small fragments of bone. The synovial membrane around the neck was very much thickened, soft and highly vascular. This was also detached in places. The smooth external table of the denuded bone had entirely disappeared, leaving the red, soft, cancellated structure. A similar change had taken place in that which was still in contact with the remaining cartilage. A large portion of the head of the femur was deeply eroded, but the surface presented the same appearance.

The changes were such as belong to comparatively acute, progressive and destructive disease, no new formation of any kind being noticed except that indicated by the thickened synovial membrane.*

The following *résumé* of this case is worthy of notice:—

1st. The short period during which the patient was unable to use his limb—he being, at the longest computation, only eight weeks deprived of its use—and the strong evidence of acute, progressive and destructive caries of the hip-joint as revealed by the post-mortem examination.

2d. The existence of severe sciatica as a secondary symptom, and the importance of a correct diagnosis between the disease of the joint and idiopathic sciatica.

3d. The co-existence of destructive and fatal renal disease without any premonitory symptoms whatever of the approaching danger, until forty-eight hours before death.

4th. The complete relief the patient obtained from subcutaneous injection, for the time, when other remedies had failed to remove the pain; and the general amelioration that took place for three weeks in consequence.

* The specimen, the upper third of the femur, has been prepared and is in my possession.

5th. The decided good effect of the external application of sulphur upon the painful limb.

6th. The good effect of *lac sulphuris* in controlling the continued vomiting.

7th. What were the chances of recovery for this patient, suffering from such rapid and destructive disease of the bone, had not renal disease suddenly put an end to his life?

PRACTICAL OBSERVATIONS ON, AND THE TREATMENT OF DIPH- THERIA, WITH ILLUSTRATIVE CASES.

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In concluding this article, that has been extended beyond the limits designed, I will not tire the reader with a resumé of the cases; but embody whatever deductions are derivable therefrom under the head of

THE TREATMENT OF DIPHThERIA.

In the thirty-eight cases of diphtheria detailed above, this alarming disease is presented in almost every varied phase. With a singular uniformity the stimulating treatment—whether in the acute or chronic stage—that of excitement, fever and inflammation, or of prostration, paralysis, rheumatism or dropsy—had the same happy effect. In all conditions, that had a diphtheritic origin, it was uninterruptedly followed; since we only regarded the causation, not its manifestations—the root of the evil, not its offshoots—and directed our efforts to the removal of a special state of the blood. This state of the blood, which is prone to occur in scrofulous children, or adults reduced by disease or of feeble constitutions, in a certain endemic condition of the atmosphere, is marked by a diminished vital power; which being exalted by stimulants, the symptoms are checked, the inflammation subdued, the membrane removed, a rapid recovery effected and relapses prevented. In other words, this plan of medication is radical; strikes at the heart of the trouble; whereas most others, that have been proposed, are but an ineffectual warfare against symptoms. The blood, which is similarly affected in the mild or severe cases, in the first or later stages, only differing in the degree of its dissolution, alone claims our attention. Against this condition, before the disintegration is irreparable, we bring to bear the most powerful means in our hands, to buoy up the constitutional powers, and sustain the activity and energy of each function. The first link in this morbid chain being this retrograde movement in the vitality of the blood, when this is checked, fever, inflammation, hæmorrhage, exudation, collapse, paralysis, dropsy, &c., disappear, almost magically, from the simple fact that the cause has been rendered null and inoperative, and the prime pathological change removed.

Of the remedies that have been employed in diphtheria, two only have proved themselves in our hands worthy of confidence, with the exception, in the chronic stage, in favor of the salts of iron. These two remedies—alcohol or cinchona in one of its forms—are administered in such doses and at such intervals as to secure one effect—the fullest stimulation of the nervous and vascular systems. Either singly may suffice when the vital force needs but slight aid to maintain the integrity of the blood; but the two united have more than a double power, and call out the greatest possible amount of resistance; since the nerve centres and bloodvessels—the great life-factors—are exalted to the highest point. Alcoholic liquors, when given in such quantities and intervals, as to occasion and keep up a steady but not excessive excitation, not only quicken the functional offices of each organ, but act, more especially, on the nervous and vascular systems. They bring out the latent powers, arousing them when dormant and freeing them when oppressed by a load of morbid influences; and thus give, for the time being, the greatest energy to the entire organism. Herein, according to the views of many therapists, alone consists the value of this class of stimulants in any disease. The patient lives over the crisis, or the poison is spent or eliminated; and thus recovery becomes possible. This is but a partial estimate of the remedial action of alcohol; which not only produces the effects just mentioned, but others of much greater importance in the present disease—the increased vitality, cohesion and crisis of the blood itself. It is well known that the habitual use of spirituous beverages augments the blood-making process, renders the blood richer in all of its important constituents—the red globules, albumen and fibrin—and of a greater crisis; by which means, there arises an excess of organizable material, that often occasions inflammatory diseases in *bonvibrants*. This condition is the opposite to that existing in the diphtheritic subject; whose blood has, invariably, been rendered poor by exhausting disease, or impoverished by the demands of increase and growth, as in the instance of children. These causes are intensified and rendered operative by a scrofulous or syphilitic taint.

It is a noteworthy fact, that, in my experience, the diphtheria never attacks those habituated to the use of spirits. This, if confirmed, may be more than a remarkable coincidence.

We, therefore, from clinical observations and therapeutical deductions, arrive at the practical conclusion, that alcohol is not only a stimulant to the system at large, but also to the blood itself, quickening its vital elaborations, and increasing its vital status; through which, a direct barrier is thrown in the way of the disease. In other words, the results produced by the disease, and by the alcohol in the blood, being directly opposite, they neutralize each other; and thus, the stimulant assumes in our eyes the position of a true remedy, a trustworthy antidote. Hence its medicinal power being not only re-

medial, but prophylactic, will prevent the extension of diphtheria in the other members of the family, as well as cure the one affected. This conclusion is a necessary sequence; if the pathology of diphtheria and the *modus operandi* of alcohol have been correctly appreciated.

In malignant cases of diphtheria, we might desire to avail ourselves of a co-operating remedy; of one, like quinia, that particularly excites the great ganglionic nervous centres; by which means, we should attain a maximum of power, and carry stimulation to the highest possible degree. The various preparations of the cinchona bark fulfil this indication; and, when pushed to the extent of causing tinnitus aurium, are our most potent nerve-stimulants. Their efficacy is shown in all diseases when the innervation is weakened, disordered or perverted; in fevers from malaria, in fevers from a blood-poison, and in a variety of morbid conditions attended with an exhausted or defective nervous energy. As a tenderness of the gums is a mark of the saturation of the system with a mercurial, so the ringing in the ears indicates that the brain is fully under the influence of cinchona. Both it and the alcoholic stimulant, whether used singly or united, should be given with regularity and in sufficient doses to obtain their full effects; and then the latter, in a lessened quantity, continued for two or more weeks after the disappearance of the disease and its sequelæ. From the outset to a permanent restoration to health, one, or perhaps both, of these remedies are to be continuously administered.

In the more tedious cases, that retain a hæmorrhagic tendency, the substitution of a sesqui-salt of iron for the cinchona might, for a time, be advisable, when the peculiar effect of the latter on the brain had been attained. These salts of iron, like the alcohol, increase the crasis and coagulability of the blood; as I have experienced in several instances of internal hæmorrhage; but they affect the body of the blood too slowly to be a trustworthy reliance in acute cases. Their action would be slight short of two or three days; whereas the progress of diphtheria brooks no delay. Indeed, one of my cases was attacked with the disease, although the persulphate of iron, in free doses, had been in use for hæmoptysis for more than forty-eight hours. At least fifteen drops of the muriated tincture, or five drops of the solution of the chloride or persulphate of iron, should be administered every third or fourth hour whenever we desire this peculiar change in the blood; but in chronic cases, with more time at our disposal, the dose may be less; since, usually, our main object is now to remedy the anæmia.

Most writers insist strongly on the importance of giving large quantities of animal broths to sustain the strength of the patient, and thus enable him to ride out the violence of the disorder. This, as a medicinal means, cannot but be erroneous in the early stages; since most of the patients are taken while eating heartily of animal

food, and enjoying their usual health. We could not expect that nourishment, however concentrated, which did not prevent the accession of a disease, whilst the digestion was vigorous, can cure it when digestion, assimilation and nutrition are completely destroyed. The change of our food into the living structures is something more than its ingestion into the stomach or its absorption into the blood-vessels; and nutriment, unappropriated, can be but an incumbrance—a foreign element—which will be carried off by the kidneys with the effete matters. Most of my patients took little or no nourishment before convalescing, when it was directed for the same reasons that we order it in other ailments.

It is important to avoid close, hot, and badly-ventilated rooms, and secure a free circulation of air. As soon as practicable the patient should be taken out of doors, and no fear need be entertained of *catching cold*; the disease having no analogy with tonsillitis, pharyngitis or any other mucous inflammation whatsoever.

At the present time, the chlorate of potash seems to be the favorite of the hour; but it has, probably, no greater claims to our regard or any more solid foundation for its character as a *specific*, than iodine or cod-liver oil in the height of their fashion; when it was presumed that tubercles would be absorbed, cavities closed, and, in fine, phthisis cured by the marvellous efficacy of these remedies. Theory was the only foundation on which such expectations were founded; as it is, for the eulogiums lavished on this new wonder by its advocates. They, observing that the blood, removed from its vessels, is reddened when this salt is added, conclude straightway that we can, by its use as a medicine, supply a lack of substance in the lungs; that its elements being set free in the circulation, the oxygen of the salt will not only fill the place of that which should have been received from the inspired air, but by its excess act as a stimulant, as is observed when this gas is inhaled; and that the chlorine, by its antiseptic properties, will purify the blood, and thus the *materies morbi* will be neutralized.

My observations teach me that the chlorate of potash is perfectly unreliable in diphtheria; and, I am not sure its employment may not be injurious; certainly its irritation when gargled does harm, and if, when received into the blood it is decomposed, the free alkali will act as a liquefacient, by which means the crisis of the blood will be lessened, and the disease increased. All liquefacients, such as alkalies, mercurials, iodine, &c., are contra-indicated in a dyscrasia, like that of diphtheria, since their effects coincide with that of the disease; thus rendering the death of the patient, in all severe cases, more imminent. From experiments made by myself recently, however, it is more than doubtful whether any decomposition of the chlorate of potash takes place in the blood. I had under my care a young man, 21 years of age, who had had the morbus cæruleus from birth. The surface of the body was of a purple color, from

the faulty aëration of the blood. I gave him 3 ij. of the chlorate of potash in the twenty-four hours on three different occasions; but at each trial, after continuing the salt two or three days, it had to be discontinued from the irritation set up in the stomach and bowels. The blood was not reddened in the slightest degree, a fact brought to the attention of several medical gentlemen; but the urine was very largely increased, amounting to more than twice the normal quantity, and had a specific gravity averaging about 1010, and an acid reaction. The alkaline salts—those formed by vegetable acids for instance—that are known to be decomposed in the blood, are eliminated from the kidneys as carbonates; and were this the fact in the case of the chlorate, the urine would be alkaline. Since this experiment I have tried the chlorate of potash in the Clinic, where its diuretic action in most of the cases was equally well marked.

Hence we infer that the theory of the *modus operandi* of this salt has no real basis; and that, as far as we know, its efficacy lies solely in its stimulating the urinary secretion. It is an irritant, whether in the stomach or blood, and thus stimulates the functional activity of the organs it comes in contact with; but in a free dose this irritant quality produces inflammation; as happened in one of the cases related, in which two drachms of the salt caused violent gastritis. On two occasions I have known an ounce of the chlorate of potash taken in twenty-four hours, although in dilute solution, to occasion severe and protracted vomiting.

It is proper that a reason should be given for the use of the sulphate of cinchona in the later cases. For the past sixteen months I have employed this salt, in public and private practice, to the amount of several ounces, and attained results warranting the opinion, that it, equally with quinia, merits our confidence. In all cases demanding a nerve-tonic, even in intermittent fever, I have found the cinchonia not inferior to the quinia; and in three cases, in which the paroxysms returned one or more times after the use of the latter, the former was permanently successful. All practical physicians are aware of the frequent relapses in miasmatic fevers, unless at intervals, by renewals of the medicine, its peculiar impression on the nerve-centres is perpetuated; and also, it is well known, that, after several recurrences of the disease, the quinia wears itself out; and thus we are obliged to resort to arsenic or some other antiperiodic. The high expectations we had indulged in, regarding its specific qualities, are not realized; and perhaps the measure of our success falls short of that which attended the profession before chemistry discovered the active principles of the bark. In taking one constituent to the exclusion of the others, we incur the danger of lessening the efficacy of the medicine; and, it may be, discard those that would not only heighten its power, but prevent relapses by eliminating the *materies morbi*.

I have treated more than twenty cases of fever and ague with the sulphate of cinchonia, and find that ten or fifteen grains are sufficient to break the paroxysms. Its use was permanently successful in every instance, and relapses were infrequent, although designedly the medicine was not long continued or renewed. The cinchonia does not, even where twenty grains are given in the twenty-four hours for several days in succession, stimulate the brain, cause fullness, pain or tension in the head, or noises in the ears like quinia. In two cases there was slight tinnitus aurium, in one presbyopia, and in some a large increase of urine. Our experiments seem to show, that the impression of this salt on the nervous system is different from that of quinia; and that, having equal potency to subdue the paroxysms of an intermittent disease, it may, possibly, in addition, possess a property to prevent their return by elimination or otherwise. Probably the union of both salts in a prescription would be more efficient than either singly. The bark in substance, were it not for its bulk, would be preferable to any of its preparations; since thus we should administer all its constituents in their natural combinations. The fluid extract is all that could be desired; and, containing the virtues of cinchonia in a concentrated form as they existed in the bark, is, beyond a doubt, the most reliable.

In this JOURNAL for February, 1862, I had the honor to direct the attention of the profession to the pyrophosphate of iron, and to recommend it as a nerve-tonic; capable, by the phosphoric acid set free in the blood, of increasing the nutrition of the nerve-centres, and thus radically curing diseases arising from defects of innervation. Later experience has more than confirmed my expectations. The chronic forms of paralysis following diphtheria will be promptly amenable to the power of this remedy; which, as it adds a natural element to the nerve-centres, will be a stimulus more friendly than strychnia; that, acting only as an excitant, merely calls out the latent nervous influence.

It only remains for me to say a few words on the local treatment. This is of little efficacy; and should, in our opinion, be limited to demulcent drinks. Of the many external appliances, leeches, which are exhausting, and poultices or fomentations, which invite the blood to the point of their application, are among the most objectionable; but all, of whatever kind, are useless, if not prejudicial. All irritating, astringent or stimulating gargles increase the inflammation of the fauces, and thus afford a nidus favorable for the effusion of the membrane; but of the many kinds of local medication calculated to spread the membrane and extend it into the rima glottidis, none could have been devised more singularly appropriate than the various caustic substances in use, which not only augment the congestion already existing, but destroy the epithelium of the unaffected parts; and then, frequently, the membrane takes its place, for the same reason that it appears on the derma where the cuticle has been detached.

This, the most simple of all facts, seems never to have attracted any physician's attention. In one of my cases the membrane, two hours after an application of the tincture of iodine, was found extended over two thirds of the posterior surface of the pharynx.

In cases where the larynx is not sufficiently implicated to interfere in a serious degree with the aëration of the blood, the general treatment is still to be relied upon as offering the best chance to the patient; but, when at each inspiration there is a forced, though ineffectual, effort to expand the chest, and the skin has a purple tinge, tracheotomy, as a last hope, should be performed in patients over two years of age; whenever, other things being favorable, the exudation is thought not to extend into the trachea. Warranted as I am in the expectation that the membrane will not spread after the free use of stimulants for thirty-six hours, I should, in disregard of the statistics of the operation in which the after-treatment was faulty, still hope that in a few cases a cure might thus be effected. Under any course of medication the disease might not pass down the trachea for one or two days; but by the use of stimulants its progress may, possibly, be limited to the larynx, whence it would be detached and removed, as it is seen to be, from the fauces, whilst respiration in the meantime through the artificial opening was going on beneath the seat of the exudation. Every care should be taken to prevent the supervention of inflammation of the bronchial mucous membrane by having a moist, warm air surrounding the patient, by omitting any local applications through the tube, and by not attempting to bring up mucus or membrane on swabs or other contrivances that sometimes for this purpose are thrust into the trachea; since the exudation will be almost surely formed the moment the mucous membrane is inflamed.

From the extreme difficulty of regulating the air of the room, I would suggest the idea whether by some arrangement to the front of the neck or the outer mouth of the tube, after the plan of the respirators formerly in use, it might not be possible to secure constantly a warm, moist air, such as is always furnished to the lungs by its passage through the nostrils, and thus a greater success in the operation be realized.

Bibliographical Notices.

The Principles and Practice of Obstetrics. By GUNNING S. BEDFORD, A.M., M.D., Professor of Obstetrics, the Diseases of Women and Children, and Clinical Obstetrics in the University of New York; Author of Clinical Lectures on the Diseases of Women and Children. Illustrated by four colored lithographic plates, and ninety-nine wood engravings. Third Edition, carefully revised and enlarged. New York: William Wood & Co. 1863.

No lengthy notice is needed of a book which, like the present one, has come to its third edition in thirteen months from its first issue. Dr. Bedford's excellent work was very fully reviewed in our pages on its first appearance, and the signal success it has met with fully confirms our first favorable impressions. In fact, it may be said to have been taken up by acclamation as a standard authority on the subjects of which it treats. We learn from the preface to the present edition that it has already been adopted as a text book in nine of our Medical Colleges. As now published, it has been carefully revised and enlarged, and contains a lecture on *Phlegmasia Dolens*, which did not appear in the previous editions. It does not make quite so handsome an appearance as it did in the former issues, owing, we suppose, to the exorbitant price of paper at the present day.

A Theoretical and Practical Treatise on Midwifery, including the Diseases of Pregnancy and Parturition, and the attentions required by the Child from the period of birth to the period of weaning. By P. CASEAUX, Member of the Imperial Academy of Medicine; Adjunct Professor in the Faculty of Medicine of Paris, &c. Adopted by the Superior Council of Public Instruction, and placed, by Ministerial decision, in the rank of the Classical Works designed for the use of Medical Students, in the Maternity Hospital of Paris. Third American, translated from the Sixth French Edition, by WM. R. BULLOCK, M.D.. With one hundred and forty Illustrations. Pp. 971. Philadelphia: Lindsay & Blakiston. 1863.

It certainly requires considerable courage in a publisher to print another full treatise on Obstetrics at the moment when Dr. Bedford's admirable work is on the summit wave of popularity; but the established reputation of that of M. Caseaux gives it an authority which saves the undertaking from the charge of rashness. Among the new features of the present edition are the Sixth Part, of between forty and fifty pages, on the hygiene of children from birth to weaning, a detailed account of cephalic version by external manipulation, and an appendix on the use of anæsthetics in labor. On this last subject the author speaks with excellent judgment, although his use of chloroform as the agent makes him more timid in the employment of an anæsthetic than he would be were he to adopt the incomparably safer one generally used here, and which was the first employed for this purpose. But the day will come, we hope, when considerations of convenience to the operator will not, even in Europe, outweigh the many other considerations which so strongly commend sulphuric ether to us as the only proper anæsthetic. M. Caseaux's work is of special interest as giving us what may be considered as the French practice of midwifery at the present day, and no obstetrical library therefore can be complete without it. The present edition is beautifully printed and well illustrated.

IN the *Indiana Hospital for the Insane*, for the year ending October, 1862, there were under treatment 500 patients. Discharged restored, 114; discharged improved, 26; discharged unimproved, 47. Died, 14. The Institution is represented as being in a prosperous condition.

Army Medical Intelligence.

HEALTH OF THE 45TH MASS. REGIMENT.

To the Surgeon-General.

NEWBURN, N. C., Feb. 28th, 1863.

DEAR DOCTOR,—I take the advantage of the occurrence of the end of a month, at which time a consolidated statement is made out to the Medical Directors of the Departments of the Army, to write you concerning the health of the 45th Mass. Regiment, here stationed. I sent you an account of the killed and wounded in the battles of Kinston and Whitehall, in December last; 5 or 6 have since died of wounds there received.

In the month of January, a disease appeared in our camp, having the symptoms of meningeal inflammation of a most intense character. We had 5 cases, all fatal, and 4 within thirty-six hours; the fifth lingered till the fourth day; 3 died in camp and 2 in general hospital. The strongest men were taken, and without premonitory symptoms, other than a chill and pain in the head and limbs, soon followed by cerebral disturbance, delirium and finally coma; no method of treatment has seemed of any avail—the antiphlogistic, antispasmodic, mercurial, internal and external revulsives, quinine and stimulants, have all been tried in vain.

The disease is, without doubt, malarial in its origin. The weather has been, as a general rule, warmer, wetter, and more changeable than usual; our camp, and others where the disease has prevailed, is on an immense barren plain, surrounded on all sides either by water, marshy woods or swamps; the regiments in barracks have chiefly if not entirely been the sufferers, while those in tents, in bivouac, and in the city, have been spared.

As this is not the time of year when malaria is ordinarily active here, I was unable to account for this disease, except from some cause existing in the barracks. These are constructed of pine, which was growing a month or six weeks before it was used as building material, and they are badly ventilated, crowded and insufficiently warmed. I have regarded these new barracks as containing in their *green wood the storehouses of malaria*, which, *intensified by insufficient ventilation* and crowding of the men, has been the cause of this disease. I believe this opinion is not that of the generality of the profession here, but I have as yet no reason to modify my first belief. As soon as the disease appeared, I caused every man going on guard to take three grains of quinine, with or without whiskey as he preferred, at night, and had an extra issue of coffee and bread served to the guard in the night, believing quinine the best prophylactic, and a full stomach calculated to resist any nocturnal morbid cause better than an empty one. For the last month the regiment has been doing guard duty in Newbern, and not a case of this cerebral disease has occurred in it.

It has been called "congestive fever," but erroneously, I think; it differs in character, course and prognosis from the "congestive fever," a form of "bilious remittent," which prevailed here last summer. It is evidently a cerebral inflammation, with congestion in some cases, but as frequently *post-mortem* as during life, and the congestion in no way concerned in the rapidly fatal termination. Examination after death has amply proved that it is an inflammation of the serous mem-

brane of the base of the hemispheres (chiefly) and the upper part of the spinal cord, with effusion of lymph at the base of the brain; no constant morbid appearances have been found in any other organ; the external cerebral and pulmonary congestions are, I think, produced after death, or at any rate have no share in the fatal result.

Since coming to Newbern, the health of the regiment has been excellent, the sick list averaging only 20 daily, with 6 in hospital, and most of these cases being coughs, colds, and muscular rheumatism, consequent on exposure to rain and at night on guard, and readily disappearing in a few days.

There are about twenty old and used-up fellows, who have been by military or medical fraud foisted on the regiment, who ought to be discharged, except that such ought to be made to suffer for enlisting merely for the bounty. One chap confessed that he had passed his 64th birth-day: there are ruptures, varicoceles, varicose veins, diseases of heart and old rheumatisms, which ought to have been excluded; but, being here, they must endure it for the period of their enlistment.

By a recent order here, regimental hospitals, as a general rule, have been abolished, and surgeons have been ordered to send their sickest patients to the general hospitals. This is, in my opinion, a mistake, fraught with danger and sacrifice of life. Allowing the general hospitals to be perfect in their kind, as far as external surroundings and internal arrangements and accommodations are concerned, I maintain that regimental medical officers will take better care of their own few sick with inferior accommodations, than hospital medical officers can of a great many sick, from numerous regiments in which they are not specially interested, and for which they feel less, if any, personal responsibility. A surgeon is more or less identified with his regiment, and must feel more interested than a stranger can be in the sick of his own command; he has more time to devote to each case, having less to take care of; he can exercise a stricter superintendence over the nurses and attendants, and can have things more his own way than in a general hospital: the sick are more contented and cheerful surrounded by their own comrades, and are more visited, encouraged and cared for by their company officers than they could be (or are, at any rate) in general hospitals. The latter are so crowded, and matters managed in such a wholesale manner, that private suffering occasionally has been endured, unnecessarily and uncomplainingly; the greatest good of the greatest number, and not the utmost attention to each individual case, must in hospitals, as in other public institutions and associations, of necessity be the rule of conduct. It is simply impossible for a medical officer who has a hundred men or more under his charge to give them the care and attention which he could bestow on twenty.

The evil does not cease here. A regimental surgeon cannot be, or, in most cases, is not, detached for hospital service; the *assistant surgeons* are selected, wherever there seems to be an available candidate; thus, the gravest cases, which must be sent to general hospitals, come under the care of those who, *ceteris paribus*, are generally much younger and less experienced men than those who are left in charge of the slightest cases in the regiment, which in most cases would get well without any treatment. Everything seems the reverse, in point of fact, of what it should be; the gravest cases have the least experienced physicians, and *vice versa*—a system which, to the common-

est understanding, seems the opposite of what should be pursued. Supposing that length of years brings experience, and experience superior knowledge in the treatment of disease, it must occur to every one that the present system must, or at least may be, pursued at some sacrifice of human life.

The dangers of this system are increased by the insufficient amount and variety of medicines and hospital stores allowed by the new supply table to regiments technically said to be "in the field," though in camp for months, with only an occasional expedition; such regiments need, but cannot obtain, the same medicines, both in amount and variety, that would be required in a post or other hospital having the same number of sick. For instance: having a thousand troops to take care of, because our post is not a permanent one, I am entitled to no citric acid, tartaric acid, aloes, bismuth, catechu, cubebs, buchu, conium, hyoscyamus, veratrum viride, iodide of iron, sulphate of iron, powdered liquorice for pills, whole flaxseed, magnesia, cod-liver oil, nitrate of potash, rhubarb, borax, sulphur, strychnia, wine, porter, a variety of instruments, books, and hospital furniture and stores—and such a small amount of other articles like tannin, alcohol, ext. colchicum, cit. iron and quinine, sweet oil, oil of turpentine, pulv. scillæ and bicarbonate of soda, that they are all used in less than one third of the time for which they are intended. I can, by special requisition, if the Medical Director see fit, get an increased supply, but such requisitions are discouraged by the Surgeon-General. In order to be sure of what I actually need, I have sent to Boston to purchase medicines with our regimental fund—hoping in that way to keep my sick out of hospital, regimental or general. I think the necessities of the service will soon require a modification of the supply table. I write this to you, hoping your influence and advice might obtain what would be unattainable in other ways.

Yours respectfully,

SAMUEL KNEELAND,
Surg. 45th Mass. Vols.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MARCH 12, 1863.

AMERICAN MEDICAL ASSOCIATION.—It is with much pleasure that we would again call the attention of our readers to the notice of the Chairman of the Committee of Arrangements of the American Medical Association inserted at the close of our last week's editorial matter. We believe the committee has acted wisely in this matter; indeed, we see no more propriety in any longer delay than there would be in advising against another session of the National Congress until the rebels had signified their desire to be admitted to their former seats in that body. There can be no doubt as to the feeling of our Southern professional brethren towards the Association. They are as much opposed to union upon a common ground of science as upon a political basis. They leave us in no uncertainty; they openly declare their independence of us in religion, in medicine and in literature, as well as in affairs of government. They will have nothing in common with us; the same madness affects them all. There are, however, those among us,

who, notwithstanding this voluntary refusal upon their part, in spite of the courtesy thus far shown them, of all connection with us in future, would even now wait until peace comes before calling another meeting of the National Association. Is there a physician in the Northern States who desires or dreams of a probable peace until the supremacy of the National Government is again asserted over all its lands and people? Even then, can we expect for many years to see our Southern brethren ready to forget the failure of their proud hopes and to meet us in a spirit of peace and re-union, even in a calm scientific association? We fear that sectional animosities will be still stronger after defeat than now, and that the National Association will call to its meetings but few of its former Southern members, who are now so unanimously opposed to the continuance of our common country. We cannot shut our eyes to the truth, and trust blindly that better days and feelings are to come. We cannot wait, we are called to act in the present and for the best interests of our profession throughout the country.

The passions of bad men should never be allowed to interrupt the progress of humanity and science. We still have a National Association. Its government, its objects and its importance are the same to-day as when it was founded. There may be Southern societies formed in opposition to it, as there have hitherto been Southern and Northern State Societies, but they can never take the place nor materially detract from the importance and dignity of the general Association.

We are this very moment feeling the need of a more close intimacy between the various sections of our country. Politicians, in full sympathy with the base purposes upheld by the very men in consideration of whose feelings we have too long shown a delicacy unasked for and unappreciated, are endeavoring to sow the seeds of jealousy among those of us who have hitherto recognized no geographical individuality of interests. There could be no jealousy were there more fellowship between us. Sectionalism can only be fostered among strangers. In past years there have been very kindly interchanges of visits between the physicians of the extreme East and West on the occasions of the annual meetings of the general Society, and we are sure that a renewal of these mutual courtesies will do much to counteract the evil efforts of disloyal and unprincipled politicians. Our country has become so vast that we shall soon know as little of one another as if an ocean separated us, unless we recognize and sustain some common interest. The commercial traveller is not always the best representative of the communities between which he passes to and fro, and if we would keep alive the natural affection, which now exists between us, we should encourage every occasion like the present which brings together educated and honorable men from all sections of our common country. We must take each other by the hand oftener and look into one another's face and feel that we are really brothers, and not allow lying partizans and heartless demagogues to say that we are not so, in so bold and frequent a manner that we hardly escape believing them in spite of our better judgment.

It is not in a political point of view only, however, that we consider the revival of the Association as a matter of so much importance at the present time. Next to our country our art is to be cherished, and did we ever feel the necessity of some general regulating power at

work it is at the present time, when so many new phases in our professional life have been developed by the war, and so much need has been experienced of the utterance of some powerful voice to correct the errors of inexperience and inefficiency. Have we not remained culpably inactive and allowed humane men of other professions to step before us in the path which should have been our own? Has not the United States Sanitary Association been doing the work which, in part at least, properly belonged to our National Association? Have we not even been indebted to it for professional instruction and the reform of abuses in our own branch of the service? There are still, however, many important reforms which require the powerful influence of such a body as the National Association to be pushed to their accomplishment, and it is to these that its attention first of all should be directed. We cannot at this time refer to the many other important matters, such as a uniform and improved standard of medical instruction, the foundation of schools of military surgery, &c., which so imperatively demand the immediate attention of the Association, but we trust every Society throughout the country will see that it is fully represented at the coming meeting at Chicago on the first Tuesday in June.

DISSECTION OF A HOTTENTOT.—At a meeting of the Boston Society of Natural History, the President, Dr. WYMAN, gave an account of the dissection of a Hottentot, who recently committed suicide in this city:—

"The subject was a young and healthy adult, who came to his death by suicide. The chest was well formed and prominent, the shoulders were well made but not broad, the loins very hollow, the hips narrow, the thighs full and feminine, and the calves slender. There was no beard, no hair in the axillæ or on the pubes. The ears were well formed, but the lobule was quite small. The web between the fingers was more extensive than usual, and gradually increased in breadth from the index to the little finger, where it reached as far as the joint between the first and second phalanx.

"Height of the body, $65\frac{1}{2}$ inches; spread of arms from tip to tip of middle finger, 66; from top of head to top of trochanter, $29\frac{1}{2}$; from top of trochanter to sole of foot, 36; breadth of shoulders, 13; breadth of waist, $9\frac{1}{2}$; breadth of hips through trochanters, $11\frac{1}{2}$; length of arm from acromion, $30\frac{1}{2}$; length of thigh from trochanter, 18; length of leg from top of tibia to sole, 18; length of hand, $7\frac{1}{2}$; Length of foot, 9.

"From a comparison of the above measurements it will be seen, that while the height of the body and the spread of the arms are almost exactly equal, and thus conform to the standard of a well-proportioned man, the legs are disproportionately long. The tops of the trochanters, instead of being in the middle of the whole height, are five and a half inches above it.

"The brain weighed 3 lbs. 2 oz. av., which is about the average weight of a European brain. There are no weights of the brains of Hottentots given in the tables of the comparative weight of the human brain. Dr. Morton gives the measurements of the three Hottentot crania, the average capacity of which is 75 cubic inches. A cubic inch of brain is estimated to weigh 259.57 grains, and this multiplied by 75 would give, as the whole weight, about 2 lbs. 12 oz. av."

FOREIGN INTELLIGENCE.

THE University of Jena has experienced a great loss within a few days. Prof. Lehmann, the renowned chemist and one of the first authorities in his specialty of physiological chemistry, died on the 6th of January, while yet in the prime of life. He had only been connected with the University eight or nine years, and was highly esteemed both as a lecturer and practical instructor.

Among the seven physicians who, on the 29th of December, received the Monthyon Prize of the French Academy of Sciences, were Professors Lebert and Frerichs.

The *Wiener Med. Zeitung* reported a case some months ago, in which a portion of the pancreas was voided through the intestine and found in the feces. Contrary to all expectation, the patient has completely recovered within the last fortnight, and is about to return home.

Oppolzer has acceded to the request of the Vienna students that his bust should be executed in marble.

Prof. Hebra has been elected corresponding member of the Belgian Royal Academy of Medicine.

The *Presse Méd. belge* gives two cases, in which Laugier had employed baths of oxygen gas in senile gangrene with the most favorable result. He inserts the affected part in an ox-bladder, which is connected by a stop-cock and flexible tube with an oxygen apparatus. The bath is used an hour daily. In one of these cases, that of a man 76 years old, with a slough upon the great toe and several livid and painful spots upon the other toes and the back of the foot, the severe pains disappeared after the employment of the bath five days, the affected portions assumed a natural appearance and the sensibility returned. Subsequently the slough fell off, the wound healed quickly, and the patient completely recovered.

Prof. Jäger, the distinguished oculist, of Vienna, celebrated on the 12th December his 50th "Doctorjubiläum." The Royal Danish Society of Physicians elected him, the first foreigner, an honorary member.

One of the daily papers in Paris lately announced that Trousseau had been called in consultation to Garibaldi in Italy. The result of this false report was that the well-filled consulting room of this popular physician became at once empty, so that he was obliged to contradict the statement in the public journals. This unlooked-for honor cost the Professor nearly \$1,000.

At a recent session of the k. k. Gesellschaft der Aerzte, Prof. Pillwax stated that canine rabies, lately very prevalent in Vienna, had considerably decreased. The number of dogs affected in all was 33, of which 6 had raving, the others quiet mania. In this century the disease has been four times epizootic: first in 1814-15, secondly in 1838, '39, '40 and '41, the third time in 1848, and lastly in the present year. In 1841 145 cases occurred, an unusually high number. Thirteen persons only were bitten by the above 33 dogs. With regard to the contagiousness, experiments in inoculation had proved that both the saliva and blood of affected dogs are contagious, and to such an extent that the saliva of the bitten dog may produce the disease in another by inoculation. Prof. Pillwax is of the opinion that a peculiar

specific contagion in the atmosphere produces the disease, though many deny the existence of this contagion, and believe that it is only transmitted by biting. He had inoculated three dogs with the saliva and blood of the boy, who had recently died of hydrophobia in the Hospital, which were still under observation, but as yet had exhibited no signs of rabies.

At another meeting of the same Society Dr. Neumann spoke of the symptoms produced by the application of tar to the external skin, viz., oppression at the stomach, vomiting of a black fluid and discharge of black fecal masses, and, when a third of the body has been tarred over, of dark urine smelling of tar. After repeated applications, however, or when applied to persons who have lain for a long time in Prof. Hebra's 'continual bath,' scarcely a trace of coloring is visible in the urine. After a long-continued use of the tar, a so-called tar-acne is often produced, which differs from common acne only in the dark color of the opening of the follicle. Dr. N. applied beech-tar to the healthy skin, and carefully followed the eruption from its beginning to its highest development, the acne pustule. It has been observed that persons who inhale for a long time atmosphere impregnated with tar, are affected with a similar eruption. He exhibited two laborers from a tar-factory upon whose lower extremities an abundant acne efflorescence was visible. Workmen even in manufactories where tar is used to smear the machines are affected with an acne eruption.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 7th, 1863.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	41	38	79
Ave. mortality of corresponding weeks for ten years, 1853—1863,	39.0	40.9	79.8
Average corrected to increased population	00	00	90.98
Death of persons above 90	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
14	3	4	5	0	0	1	5

NOTICE.—Part 46 of Braithwaite's Retrospect was mailed from this office on the 7th inst. to the members of the Massachusetts Medical Society who have paid their assessment for the last year.

BOOKS AND PAMPHLETS RECEIVED.—Cazeaux's Midwifery, 3d American Edition. (Lindsay & Blakiston, Philadelphia.)—Medical Student's Vade Mecum, by George Mendenhall. (Lindsay & Blakiston, Philadelphia.)—Annual Report of the Adjutant General of Massachusetts, including Report of Surgeon-General for 1862.—Dr. Bronson's Address to the Candidates for the Degree of Doctor in Medicine in the Medical Institution of Yale College, Jan. 15th, 1863.—Report of the Trustees of the Mass. General Hospital for the year 1862.

DEATHS IN BOSTON for the week ending Saturday noon, March 7th, 79. Males, 41—Females, 38.—Abscess, 1—accident, 4—inflammation of the bowels, 2—disease of the brain, 1—bronchitis, 3—burns, 2—cancer (of the breast), 1—consumption, 14—convulsions, 1—croup, 3—debility, 2—diphtheria, 5—dropsy of the brain, 4—scarlet fever, 4—typhoid fever, 1—disease of the heart, 2—infantile disease, 3—intemperance, 1—intussusception, 1—disease of the kidneys, 1—laryngitis, 1—congestion of the lungs, 2—inflammation of the lungs, 5—old age, 2—peritonitis (puerperal), 2—premature birth, 2—scalded, 1—syphilis, 1—teething, 1—unknown, 5.

Under 5 years of age, 32—between 5 and 20 years, 8—between 20 and 40 years, 16—between 40 and 60 years, 12—above 60 years, 11. Born in the United States, 48—Ireland, 21—other places, 10.